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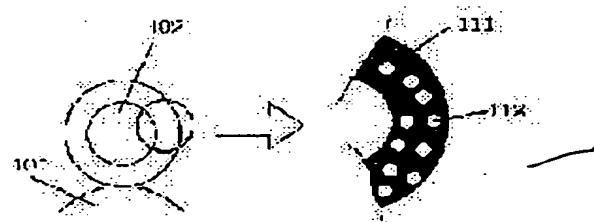
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(54) ELECTROPHOTOGRAPHIC PHOTORECEPTOR, IMAGE FORMING METHOD AND DEVICE USING THE SAME AND METHOD FOR APPLYING LUBRICANT SUBSTANCE TO SURFACE OF THE ELECTROPHOTOGRAPHIC PHOTORECEPTOR

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an electrophotographic photoreceptor which obtains excellent mechanical durability and image stability by directionally applying a lubricant substance to the surface of the photoreceptor in a direction perpendicular or substantially perpendicular to the rotary shaft of the photoreceptor.

SOLUTION: The device uses a photoreceptor 101 to the surface of which a lubricant substance is directionally applied in a direction perpendicular or substantially perpendicular to the rotary shaft of the photoreceptor 101. One example of a lubricant-substance supply



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means is a system for supplying the substance to the surface of the photoreceptor 101 from a contact electrifier (roller) 102. In order to enhance the capability of the lubricant-substance supply member to abut on the surface of the photoreceptor 101 and to impart soft contact, such a lubricant-substance supply member as that (elastic structure) having a network structure, a sponge-like substance containing air bubbles between fibers, a marshmallow-like substance, or a longitudinally splittable soft bunch of fibers can be used.

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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
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CLAIMS

[Claim(s)]

[Claim 1] The electrophotography photo conductor characterized by for the lubricative matter having had directivity in the perpendicular or the abbreviation perpendicular, and having adhered to the photo conductor front face to the direction of the photo conductor axis of rotation at least in the electrophotography photo conductor which has the axis of rotation.

[Claim 2] They are $B/10 < (A_1 + A_2) < 2B$ between the pitch B of two adhesion fields which the field where it had directivity in the perpendicular or the abbreviation perpendicular to the aforementioned photo conductor axis of rotation, and the lubricative matter has adhered, and the field which is not so exist by turns, and adjoin, and the width of face A1 and A2 of each adhesion field. -- (1)

The electrophotography photo conductor according to claim 1 characterized by having materialized *****

[Claim 3] It sets at an aforementioned ceremony (1) and the lubricative matter adhesion field pitch B is 10 micrometer $< B < 500$ micrometer. -- (2)

The electrophotography photo conductor according to claim 2 characterized by being in *****.

[Claim 4] The electrophotography photo conductor according to claim 1 to 3 characterized by the lubricative matter adhering to the aforementioned photo conductor front face being lubricative matter of a solid-state or fine particles.

[Claim 5] The electrophotography photo conductor according to claim 4 characterized by the lubricative matter adhering to the aforementioned photo conductor front face being a fluorine system resin.

[Claim 6] The electrophotography photo conductor according to claim 4 characterized by the lubricative matter adhering to the aforementioned photo conductor front face being a polytetrafluoroethylene (PTFE).

[Claim 7] The electrophotography photo conductor according to claim 4 characterized by the lubricative matter adhering to the aforementioned photo conductor front face being a zinc stearate.

[Claim 8] The electrophotography photo conductor according to claim 1 to 7 with which the aforementioned photo conductor skin friction coefficient is characterized by being 0.4 or less with the measured value by the oiler belt method.

[Claim 9] The electrophotography photo conductor according to claim 1 to 4 characterized by preparing a protective layer on the photosensitive layer of the aforementioned photo conductor.

[Claim 10] The electrophotography photo conductor according to claim 9 characterized by containing a filler in the aforementioned protective layer.

[Claim 11] The electrophotography photo conductor according to claim 9 or 10 characterized by containing the charge transportation matter in the aforementioned protective layer.

[Claim 12] The image formation method characterized by using an electrophotography photo conductor according to claim 1 in the image formation method of having an electrification-picture exposure-development-imprint-fixing-cleaning process, at least.

[Claim 13] The image formation method according to claim 12 characterized by making it adhere to a photo conductor front face by using this zinc stearate as the lubricative matter while developing a latent

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image using the developer containing a zinc stearate.

[Claim 14] Image formation equipment characterized by carrying the electrophotography photo conductor of a publication in either of the claims 1, 2, 3, 4, 8, 9, 10, and 11 at least in the image formation equipment which has an electrification means-picture exposure means-development means-imprint means-fixing means-cleaning means.

[Claim 15] Image formation equipment according to claim 14 characterized by having a means to supply the lubricative matter to a photo conductor front face from the photo conductor exterior.

[Claim 16] Image formation equipment according to claim 14 characterized by carrying the container with which the developer which mixed the lubricative matter beforehand was contained.

[Claim 17] The method of application of the lubricative matter characterized by making the lubricative matter adhere to a photo conductor front face so that it may be indicated by the claim 1 by supplying the lubricative matter from the photo conductor exterior.

[Claim 18] The method of application of the lubricative matter according to claim 17 characterized by making the lubricative matter adhere to a photo conductor front face by mixing the lubricative matter to a developer beforehand.

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